

Editorial

The Metaphysical Structure of Education in the 20th Century

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Socrates, Plato, and Aristotle put a large part of their philosophical effort into thinking about education. So did Locke and Rousseau and, in his own way Descartes. Kant had something to say about education, and Hegel less. Marx inspired a certain kind of old fashioned education in the wanna-be communist countries, particularly the Soviet Union and China. In this century Dewey, Russell, and Whitehead among large philosophical figures tried to think well about education. Each of these thinkers has had a major impact on what we have taken education to be, about what deep assumptions we have made about it. I wish to suggest that there is a sense in which all of these major thinkers were concerned with the metaphysics of education. Usually when one thinks of metaphysics one thinks of things underlying deep theories of space and time and causality, of things in some sense prior to physics (although “metaphysics” means “after physics,” but only in the sense that Aristotle’s students located the book which they attributed to him after the book on physics in his corpus). This is not what I mean by metaphysics.

What I shall mean by the “metaphysics of education” is “the presuppositional structure” of education, at the deepest level we can pitch it. Because it is at the deepest level that we are dealing with the things taken most deeply for granted. In this I am following R.G. Collingwood, an Oxford philosopher who had his zenith in the 1930s and early 1940s. Collingwood thought of metaphysics as the science of absolute presuppositions.

In the 20th century we largely inherited 19th century modes of thought and slowly modified them throughout the century which is

now about to leave us for the 21st. So it seems appropriate to devote some thought to what we have just passed through at the deepest level, the level of assumptions and presuppositions, in the educational realm. I take an assumption to be a fundamental principle that we hold consciously and a presupposition to be one that we do not necessarily hold consciously. I do not know if there are any absolute presuppositions with just the character that Collingwood thought. He conceived of absolute presuppositions on sentences in the *form* of propositions, which were never the answer to any question, because prior to all possible questions in the area or topic under scrutiny. So I shall be happy if I display a few deep presuppositions or assumptions, and will leave to others the discovery of absolute ones.

My method will be that of simply listing those presuppositions or assumptions which seem to me to have been fundamental to educational thought in this century, at least for part of the time. Thus my method is similar to that of a Czar's ukase. Of course it is important that I have divined the right ones and perhaps I haven't. But my point in trying to divine them is simply so that I can see which have been used and what role they play, which are suffering present stress or undergoing strain, and which, if any, have already been abandoned for other perhaps unnoticed assumptions. There are assumptions or deep presuppositions which, I think, we have taken for granted about children and the nature of learning, about teaching and the nature of teaching, and about schools and the nature of schooling. A great deal of these assumptions are closely related to what we have taken knowledge to be about and about what we have presupposed about that knowledge and the ways to acquire it.

Education in this century has been subsequent to the overarching research project which became dominant in our time and which may in some sense already be waning as the 21st century comes upon us. I mean the great research project which I shall call the "Interrogation of Nature." This is the overarching research project of our universities, governments, and large corporations which searches for knowledge primarily in the understanding of Nature. This project has been with us in some sense from the time of the ancient Greeks. But over the last thousand years, it has been the dominant research project at the universities only for the last 150 years or so in Europe and North America. The earlier research project, the "Interrogation of God," dominated our universities from roughly 1100 to 1850 or so. The

deepest assumptions made by the early scholars active in this great research project were that God, Mankind (or Humankind), and Nature were three very distinct notions and that Man and Nature were utterly and completely subordinate to God. Consequently any research projects interested in understanding Man or Nature were utterly and completely subordinate to the prior understanding of God and the nature of God. And that understanding was to be sought in revealed religion recorded in sacred texts.

Thus for the better part of the last thousand years we have lived with a knowledge system that subordinated the interrogation of our own nature and that of the natural world other than ourselves to the prior interrogation of God. And our educational systems, for Jews, for Christians, and for Muslims, all shared the same assumptions during most of this time. Underlying all of our other knowledge transferring or knowledge seeking activities were assumptions relating to "revealed" truth or knowledge held hostage or captive in sacred books: the books of Moses and the Hebrew bible, the Christian "new testament" which presupposed these, and the Koran.

Schooling, whether public or private, for children or adults of Jewish, Christian, or Muslim origin, over nearly all of the last thousand years has shared the assumption of the absolute importance of these sacred books. For two of these traditions, the Christian and the Muslim, the works of ancient Greek thinkers has also played a significant role, especially the thought and writings of Plato and Aristotle in the Christian tradition and that of Aristotle alone in the Muslim tradition. In India and China and in the countries strongly influenced by them other books played an important role. In both of these the writings attributed to Buddha or his influence was centrally important. In India, the impact of the British Raj was to make education as a near universal centered on a vast array of publicly funded and privately funded schools and colleges and offering a Western education, a new development of overwhelming importance, even after Gandhi. In China, the writings of Confucius has been of dominant importance for nearly 2500 years until, under the impact of the leaders of the People's Republic, especially Mao, its influence declined to near extinction. The Communist leaders of China reproduced western schools and western curriculum almost exclusively, except, of course in the matter of the Chinese written language.

The net result of the last 150 years, and especially of the last 100, the entire period of the 20th century, has been to create a vast international network of schools, colleges, and universities subordinate to the Interrogation of Nature as the primary source of knowledge or the standard by which all other knowledge was to be measured. There have, of course, been reactions to this state of affairs which have affected to some degree the absoluteness of the presuppositions imbedded in the universal common school movement and common university movement. For example, in Iran the impact of Muslim fundamentalism has had an impact on curriculum both in the schools and the universities. In Saudi Arabia the role of women in education is under severe constraint, opposing the tendency for the common school movement to be neutral regarding sex. In the southern United States there is an underlying suspicion of the ongoing Interrogation of Nature as the primary source of knowledge, especially when it tends to contradict an apparent literal reading of various passages in the Bible, especially the Old Testament. Thus modern astronomy and modern evolutionary theory are especially threatening to those who would presuppose revealed knowledge, as found in a sacred text, the Bible, as primary and in some sense in direct conflict with knowledge acquired according to the natural scientific paradigm.

But with these and a few other exceptions this century is notable in that for the first time all of our knowledge-based institutions presupposed the touchstone of the Interrogation of Nature as primary. Not surprisingly our schools and universities have been generally judged a success if the number of scientists, engineers, physicians, and the like have been going up and a failure if their numbers have been on the decline or staying flat. We care about international comparisons in science and mathematics, but not in poetry, in foreign languages mastered, or in philosophical or artistic greatness. We care about sport. But sport in our age is subordinate to the scientist, the engineer, and the physician. Most Olympic records are drug enhanced. We see sports psychology as a scientific study, not an art. We look to the scientific design of a better pole for the pole vaulter, a better paddle or canoe for the paddler, a better swim suit for the swimmer, a better ski suit for the ski-jumper – all scientifically enhanced. After the confessions of the East German athletes, who held extraordinarily large numbers of Olympic records, it is clear that for most of the century we have been turning a blind eye to scientific enhancement

of personal achievement. We have just not yet admitted to ourselves that this is exactly what we would expect a century presupposing the Interrogation of Nature as primary would do. Indeed, if in the 21st century we simply say that we are into enhancement by scientific means and we do not really care what these are, then we will be living according to our present presuppositions. But if we refuse no longer to engage in such scientific enhancement, of whatever kind – for example, all tennis racquets will be made of wood, be small, and have gut for strings – then we will be changing our presuppositions away from those which dominated the 20th century.

There are a host of other matters presupposed by the educational traditions of this century across our planet. Unlike all previous centuries we have considered it a social necessity, not to say a positive good, that all children attend school from as early an age as possible and for as long as possible. For those parts of the world which can afford schools of the universally available kind, this usually means a start in early childhood and continuing at least until the late teenage years. In Canada, the United States, and Europe, this usually means continuing until the mid-20s for perhaps 40% of the population who entered school a quarter of a century earlier.

Throughout this century we have also assumed a close correlation between schooling and industrial advancement or at least economic success. In order for a society to participate in the developments of this century we assumed that there was a close correlation between high universal literacy levels and economic and industrial advancement. This assumption is not the result of empirical research. There are desperately backward and industrially poor societies, like Cuba, where literacy levels are high in the population at large. Historically England, in which industrialization began, had relatively low literacy levels in the 18th century and well into the 19th century compared to some as yet unindustrialized places like Prussia and Sweden where literacy levels were nearly 100% by the turn of the 19th century. But a presupposition is not something based on empirical discussion, it is something assumed in a deep way. And we owe, I expect, the near universal spread of the common school movement in the 20th century to the presupposition that the road to economic success for a society is through a universally schooled population, since universal schooling necessarily leads to economic development and industrialization.

As the 20th century comes to a close this presupposition is under some strain. In countries like Canada and the United States, as well as in the European countries generally, perhaps only 20% of the population is needed for all economic activities. Thus one of the new uses of the common schools, which now include community colleges, technical institutes, and universities for 20 to 40% of the population, is to act as a holding pen for those who we do not really need to work at the moment. In effect some 80% of our population is in a holding pattern. The economic system employing the 20% or so who do work is supplying a subsistence living for the other 80%, those over 50, those under 25. Only the 25 to 50 year-olds are, in general, fully employed and these are a steadily decreasing percentage of the population as the supply of 25 year-olds suffers a relative decline and the group over 50 a relative increase. For the remainder, work is usually part time or non-existent.

What we are seeing here, I suspect, is that the presupposition that "everybody should go to school" with which we began the century has been transformed after 100 years into the presupposition that "everybody should go to school, beginning as early as possible and staying as long as possible." The former presupposition got its purchase because it was the presupposition underlying our picture of the relationship between literacy and industrialization. The latter presupposition gets its purchase from the economic developments of this century which has made factories that work all night in the dark, and which need a minimum number of humans to operate them. Our tendency in this scientific age to, as Buckminster Fuller put it, "do more with less" has meant that we no longer need everybody to be schooled so they can leave the farm and go and work in the factory with all the right but rather elementary habits, including the reading habit (since readers make better factory workers). What we do need is a population willing to be re-schooled at the drop of a hat and so much more highly literate and numerate than in any previous age. If this is so, then the 21st century will be the century of the sophisticated and continually re-schooled teacher or professor.

It has often been argued that schools are primarily a means of social control. Prominent educational writers like, for example, the historian Michael Katz (*The Irony of Early School Reform*), think so, as does, say, an American marxist like Henry Giroux. But if they are means of social control the grounds for that control has drastically

changed. The onrush of the single, scientific-technological civilization (referred to as the technologico-Benthamite civilization by the great Cambridge literary critic F.R. Leavis), which now spans the globe, no longer needs a steady stream of young people with three years of schooling and a modicum of reading, writing, and arithmetic in order that they will arrive at the factory on time and turn the screw driver 20,000 times per day before going home. Instead it needs a much fewer number of people at any one time, regardless of their age, who can do much more sophisticated things. (This, by the way, is an attack on the presupposition that "school is for kids." For in the new order, anybody who can be re-schooled, at any age, is potentially wanted.) There are two basic ways of arriving at a few who can do sophisticated things. One way is to try to predict what skills and knowledge will be needed 25 years in the future and to try to select now a small number of children who will be specially educated in those ways over a long period of time. This is the way that Olympic athletes, for example, are trained in Russia and China and Cuba. The other way is to give everybody possible every imaginable educational opportunity for as long as possible, with the maximum number of opportunities for each and every person to try again or to try something new and different. This is the way that Canada, the United States, and to some degree Europe engage in education in our time. This presupposition of education in our time appears to becoming imbedded even in formerly elite educational systems such as those of China and India.

In a predictable world the former strategy would be the most economical. But in an unpredictable world the latter strategy is clearly the more effective. That is probably why the presuppositions surrounding common schooling are shifting increasingly towards that of Canada and the United States from the more simple "everybody should go to school for a minimum time necessary to learn reading, writing, and arithmetic" to "everybody should go to school, starting as early as possible and staying as long as possible." The notion of "lifelong learning" is the ultimate extension of this notion which is now a notion being discussed but may, soon, have presuppositional status. If it does then one would expect that public funding and the notion of this being a right of the "claim duty right" kind would follow in its train.

It is generally agreed in Canada and the United States that publicly funded school systems which have been in place for most of the last 160 years are under increasing pressure, even attack, from without. In many western countries, like Germany and France this is not so at the moment, although there are some signs of external pressure there too. Nor is it so in Scandinavia. But in North America alternatives are being sought in many directions, not to the presuppositions that everybody should go to school from as early as possible and stay as late as possible, nor to the presupposition that socializing into the technologico-Benthamite civilization is the primary duty of schooling, but to the presupposition that schools should be "common schools" – that is schools to which people of all social backgrounds, linguistic origins, and ethnicity would go – which are publicly funded. Increasingly special interest groups are trying to get more and more public funding for their limited ventures for special students allied to special religious beliefs, or to schools for special purposes (the gifted, the athletic, the linguistically able, the French speaking, the Spanish speaking, the Ukranian speaking, the Chinese speaking, the business oriented, the musical, and so on) especially the purposes of the parents.

This is best seen as putting strain on another of the deep presuppositions of education of both the 19th and 20th centuries, namely the presupposition that the state and the educational experts were in a much better position than parents to determine what is best for a child's education. A century and a half ago (before this had achieved the status of presupposition and so the compulsory school system had been entrenched) the social reformers of the 19th century argued that homes (or places in the company of parents generally) were the worst places for children to spend most of their day. The rhetoric of the mid-19th century castigated most homes most of the time as places where "crime, poverty, and ignorance" were bred, in contrast with the safety, relative affluence, and bountiful knowledge found in schools. At the time this rhetoric would have claimed to be true. After these views became dominant they submerged in the 20th century as the presupposition that schools and official educators, not parents, should have the final say in the education of children.

There are numerous other presuppositions related to education in the 20th century which are now under strain, certainly the complete public funding of the common school, for one. And there are other

notions which were formerly presupposed but which have ceased to be presupposed. Perhaps the most important of these was the notion of the essential separateness of boys and girls, men and women. The dominant scientific world view (which essentially sees humans as biological, not spiritual entities, namely higher mammals with big brains) has been instrumental in transforming our earlier presuppositions that were largely derived from the era of the Interrogation of God. Sources in revealed religion all conspired to suggest the essential separateness of male and female for purposes of education. The followers of the Aga Khan, the Ishmaelis, treat male and female alike. But in the large majority of the Muslim world the essential separateness of men and women is still presupposed and educationally enforced. Except for some few fundamentalist Christian sects or Jewish orthodox groups, however, both Christianity and Judaism have embraced the new presupposition that male and female are essentially alike in mental and physical powers and should be educated alike. The French still cheer the words of Poincaré, a president of the French Republic earlier in the century to the effect that "Il n'ya pas beaucoup de différence entre les hommes et les femmes. Mais, vive la différence." But they educate in our time under the new presupposition that whatever the difference or differences, they are educationally irrelevant.

Perhaps in these few paragraphs I have whetted your appetite for the metaphysical in educational thought. I do not know what the future of education will be in the 21st century or over the third millennium. But I do know that whatever it will be, it will be due to the things which we so deeply presuppose that we no longer notice that we are doing so. For it is from these deeply presupposed things that we derive the questions, the answers, and the actions which lead us to our educational activities. And that if things educational change it will be because we have ceased to presuppose some things about the nature of the world, of humankind, or of God which once we did, and did not notice.

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